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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,158	08/01/2003	Osamu Koshiba	TI-34736	5419

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EXAMINER

LE, BRIAN Q

ART UNIT PAPER NUMBER

2624

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/633,158	Applicant(s) KOSHIBA ET AL.	
	Examiner Brian Q. Le	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 and 5-7 is/are allowed.
- 6) ☒ Claim(s) 4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Specification

1. Regarding CROSS-REFERENCE TO RELATED APPLICATIONS Section of the specification, the Applicant must identify the related application by the application number (consisting of the series code and serial number) or international application number and international filing date and indicating the relationship of the applications. See 37 CFR 1.78 and MPEP § 201.11.
2. Regarding page 3 of the specification under DESCRIPTION OF THE PREFERRED EMBODIMENTS, Line 13 of page 3, the term “digital stiall camera” is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 4 recites the limitation "the quantization level" on line 2 of claim 4, limitation (a). There is insufficient antecedent basis for this limitation in the claim. There are several issues regarding the quantization level. First, “quantization level” never mentioned in claim 1 which claim 4 is depending on. Second, according to the specification page 4, last paragraph, there are more than one quantization level in the quantization process. Thus, it is unclear of which quantization level is “the quantization level” is being claimed in claim 4, limitation (a). Also, after fully considered the teachings of the specification, it is unclear of whether “the quantization level” is a quantization factor, representative level of the bin of histogram as disclosed in claim 1, or quantization value/level as known in one skilled in the art. Thus appropriate action is required to clarify “the quantization level” on line 2 of claim 4, limitation (a).

Allowable Subject Matter

5. Claims 1-3, and 5-7 are allowed.

6. Claim 4 would be allowable if rewritten to overcome the rejection(s) under 35

U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Regarding independent claims 1 and 7, the prior art of records do not show a method of estimating the size of variable-length code or an encoding method comprises the limitation of “estimating a code size for said block of quantized coefficients as a sum of terms where each of said terms is a product of (i) the number of said quantized coefficients in a bin of said histogram and (ii) a code size of a variable length code for an average run of zero-valued ones of said quantized coefficients together with a representative level for said bin” in combination with other limitations of the claims.

Claims not specifically addressed are allowed because are dependent of the allowed independent claims.

Below are references that teach some limitations of the claims but are lack the teaching of disclosed limitations above:

U.S. Patent No. 6,658,157 to Satoh et al. teaches of encoding (abstract) wherein providing a block of quantized coefficients (abstract and column 2, lines 65-67), variable length coding and non-zero coefficients (column 10, lines 28-43) and code size determination (column 24, lines 45-64). However, Satoh et al. does not teach an estimating code size of block of quantized coefficients or an encoding method as “a sum of terms where each of said terms is a product of (i) the number of said quantized coefficients in a bin of said histogram and (ii) a code

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size of a variable length code for an average run of zero-valued ones of said quantized coefficients together with a representative level for said bin.”

U.S. Patent No. 6,909,811 to Kajiwara et al. teaches an encoding method (abstract, line 1) wherein providing a block of quantized coefficients (FIG. 6, elements 602 and 604), variable length encoding (FIG. 1, element 102), run-length code size (FIG. 15) and histogram of quantized values (column 19, lines 20-25). Again, Kajiwara et al. does not teach an estimating code size of block of quantized coefficients or an encoding method as “a sum of terms where each of said terms is a product of (i) the number of said quantized coefficients in a bin of said histogram and (ii) a code size of a variable length code for an average run of zero-valued ones of said quantized coefficients together with a representative level for said bin.”

Thus, the prior art of records do not show or provide a motivation of teaching of a method of estimating the size of variable-length code or an encoding method comprises the limitation of “estimating a code size for said block of quantized coefficients as a sum of one or more terms where each of said terms is a product of (i) the number of said quantized coefficients in a bin of said histogram and (ii) a code size of a variable length code for an average run of zero-valued ones of said quantized coefficients together with a representative level for said bin” in combination with other limitations of the claims 1 and 7.

Therefore, for this reason, claims 1-3, and 5-7 are allowed and claim 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

CONTACT INFORMATION

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Q. Le whose telephone number is 571-272-7424. The examiner can normally be reached on 8:30 A.M - 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on 571-272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brian Le
October 11, 2006